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**ASE 6055** 

January 20, 2012

Acton Board of Selectmen 472 Main Street Acton, MA 01720

Re: 40 Sudbury Road a/k/a 65 Powder Mill Road

SPSP 7/6/2011-433

# Dear Board Members:

Please find enclosed two full and eight reduced scale copies of this office's plans for our clients proposed building whose access is being provided via a driveway from Sudbury Road. An electronic copy of these plans is also being submitted.

As the result of a meeting with the Planning and Engineering Department a bituminous concrete berm has been added along the edge of parking lot that is parallel to the Concord Town Line. A detail of the berm has been added to the site details.

The parking calculations have been revised as required by the elimination of uses related to vehicle services.

The two plan revisions are on sheets 2 and 3. The remaining three sheets that did not require revisions have also been included in this submittal.

Revisions have not been made to the Architects and Landscape Architects Plans and these are not being resubmitted.

Please inform us if the Board or Staff should require copies of any materials submitted or if we may provide additional information concerning this matter.

Very truly yours,

Mark T. Donohoe, PE

for: Acton Survey & Engineering, Inc.

cc: Leo Bertolami

Richard A. Nylen, Esq. Planning Department



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JAN 1.9 2012

Phone: 978-263-3666 Fax: 978-635-0218 actonsurvey@actonsurvey.com

January 16, 2012

Acton Board of Selectmen 472 Main Street Acton, MA 01720

RE: 65 Powder Mill Road a/k/a 40 Sudbury Road SPSP 7/6/2011-433

Dear Board Members:

The purpose of this letter is to report on investigations pertaining to the suitability of the driveways and water supply serving the apartment complex under construction in Concord to provide emergency access and fire suppression for our client's proposed building.

### Access

A driveway parallels the driveway serving 40 Sudbury Road and is offset less than 50 feet from the proposed parking lot. We have not confirmed by field measurements if the existing driveway is congruent with the driveway shown on the site plan, but it appears to be so.

There are presently no physical obstructions between the two areas of pavements and the proposed landscaping should not encumber emergency access. If desired one or two of the proposed junipers can be eliminated.

# Fire Hydrant

There is a fire hydrant within 200 feet and visible from the driveway adjacent to the site.

We have not made investigations into the capacity of the hydrant but as it serves adjacent three story apartment buildings we assume it will be suitable for the proposed building.

## Bound

The stone referred to as a bound on the site plan does exist but only appears to be the remains of a stone post. We have not found any correlation between the stone and property or easement lines.

Please inform us if we may provide the Board with any additional information concerning this matter.

Very truly<del>yo</del>urs,

Mark T. Donohoe, PE

for:

Acton Survey & Engineering, Inc.

cc: Leo Bertolami

Richard A. Nylen, Esq.

Planning Department

Fire Department



PO Box 666, 97 Great Road, Suite 6 Acton, MA 01720

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**ASE 6055** 

January 4, 2012

Acton Board of Selectmen 472 Main Street Acton, MA 01720

RE: 65 Powder Mill Road a/k/a 40 Sudbury Road SPSP 7/6/2011-433



The purpose of this letter is to present, in a comprehensive manner, responses to Town Staff comments concerning the design of the commercial building proposed for our client's property off Sudbury Road.

We are submitting two copies of the revised plans directly to the Town Planner and have requested that we have the opportunity to meet with staff next week to review this matter. Assuming that other modifications may be required after that meeting, we will make the required modifications and submit the required number of documents requested by the Town Planner.

## Use

The building site is partially within the present Groundwater Protection District Number 2 [GWPD 2] and "vehicle facilities" of various types are not allowed.

The Special Permit listed a tradesman shop as an alternative use, so please accept this letter as our client's request that following business uses allowed in the Powder Mill District be included as possible uses for the building. The building is being built for lease and not for a specific occupant.

3.5.2 Office

3.5.12 Services

3.5.13 Repair Shop, Technical Shop, Studio

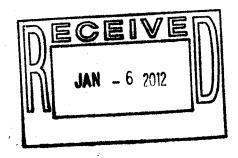
3.15.14 Building Trade Shop

If our client decides to alter the building to allow its use as a Combined Building & Dwelling [3.5.6], a Special Permit Amend will be filed.

Only those Uses allowed in GWPD 2 are proposed. A note has been added to the plan stating that the site is in GWPD 2 & 3 and that only those uses in GWPD 2 are proposed and shall be allowed. The limits of the GWPD will not be discernable on the ground and it would be prudent to restrict uses.

## **Erosion Potential**

The site is not erosion prone unless concentrated runoff is caused to flow across the ground surface at locations that are not erosion resistant. The erosion at another portion of the site was caused by runoff from a large area that included substantial areas of impervious surfaces being diverted to and concentrated at a point. The erosion was not caused by groundwater.



With the exception of water contained in sanitary sewage, additional water will not be introduced to the site. The volume of sanitary sewage is estimated to be in the order of 100 gallons per day or less, and is equivalent to an additional rainfall of 0.002 inches per day on the active development area.

The rainfall falling on the site is to be recharged as it presently is and will not increase the potential for erosion or cause the site to become unstable.

Generally, soils must become saturated to result in slope instability, which usually results in "bulging" at the toe of the slope.

## Groundwater

Four deep holes excavated at the site were witnessed by the Board of Health and penetrated to a depth of 11 feet [elevation 199.5] without groundwater or indications of groundwater being encountered. Based on the geotechnical reports prepared for the abatement of the slope erosion, groundwater in this area approaches the elevation of the wetlands at the base of the slope.

The elevation of the subsurface sewage disposal system soil absorption system is 208.0 and is over 8 feet above the bottom of dry test holes. The elevation of the recharge systems are above elevation 206 and are over 7 feet above the bottom of dry test holes.

The toe of the proposed retaining walls at the ends of the buildings are above elevation 208 and the bottom of the walls are above elevation 204, or over 5 feet above the bottom of dry test holes.

Groundwater is not a factor in the design of these facilities.

The volume and rate of required recharge to groundwater will not be changed by the proposed development [except for the small volume of sanitary sewage], and the elevation of the groundwater table will not be altered.

If Town Staff remain of the opinion that plans for all structures be endorsed by a Registered Professional Engineer of a specific discipline, we suggest that they specify the particular need for this requirement, and that the endorsement be made and submitted with the building plans.

### Access

The site is accessed through an easement provided for that purpose from Sudbury Road and is capable of providing access for emergency vehicles. Multiple backing movements will be required for large vehicles to exit the site in a forward direction, as is required at the end of the parking lot that provides access to the site.

This office knows of no published requirement to provide for parking lots of dimensions different than required by the Zoning Bylaw.

## Porous Pavement

The use of porous pavement has been eliminated and the capacity of the sand filter has been increased.

## Engineering IDC

Only those items which appear to be unresolved or not discussed above will be commented upon and will be made in reference to the numbering system of the IDC.

- 3. Propane tanks or natural gas will not be utilized for heating purposes at this site. The connections to other utilities have not been determined and it is agreeable that they be shown on as-built plans.
- 12. Additional spot grades have been placed on the plans as suggested.
- 17. Runoff from the adjacent property that is not captured by the catch basin at the end of that property's parking lot does not presently flow onto the site being developed, and the proposed pavement high point will maintain existing conditions. Any runoff not captured by the existing catch basin will overflow onto landscape areas on the adjacent property.
- 20. A note has been added to the Stormwater Operation & Maintenance Plan (Sheet 4 of 5) stating that the site owner is responsible for maintaining the stormwater system as outlined in that plan.
- 22. Additional labels and details have been added to the plan to insure the intent of the design is fulfilled.
- 35. The bound is beyond the limits of the site and appears to have been removed by the adjacent property owner. The bound did not demarcate the property or town line.
- 41. The outline of the presently proposed sewage disposal facility has been added to the Detail Site Plan (Sheet 2 of 5). The size of the soil absorption system will be decreased as required by the Uses proposed above.

## Planning Director

No response necessary.

# Board of Health

- 1. A final subsurface sewage disposal system plan will be submitted, as required, to the Board of Health prior to the issuance of a building permit.
- 2. The need for a Hazardous Materials Control Permit is understood.
- 3. Solid wastes will be retained inside the building for recycling or proper disposal.
- 4. It is suggested that a requirement of the Special Permit be the submittal of any 21E report to the Board of Health.

# Fire Department

Access to the 1790 square foot net floor area building is provided and the parking lot meets all requirements of the Bylaw.

1-5-12

Access to the building interior is provided by a man door and four garage doors entering onto the parking lot. Man doors are located at each side of the building and are located within 9 inches of ground level. A man door is located at the basement level and exits onto the stone surface of one of the absorbent triangles.

The man doors on the sides of the building can be moved towards the rear of the structure.

It is unknown if all fire hydrants have been installed at the adjacent property. One hydrant was observed within a reasonable distance of the proposed building.

# **Building Commissioner**

Access and structural issues are discussed above.

### Water District

No response necessary.

# Summary

We believe that our responses and the revisions to the site plans address the comments by Town Staff that have specificity. If all comments have not been properly addressed or if Town Staff can inform us of plan deficiencies with references to criteria, we will respond to them within two working days of their receipt.

Thank you for any consideration you may give this matter.

Mark T. Donohoe, PE

Very truly your: 2010

for:

Acton Survey & Engineering, Inc.

cc: Leo Bertolami Richard A. Nylen, Esq. Planning Department